

## ABSTRACT OF THE DISCLOSURE

A dispersion compensator is formed by an angular dispersion element, a diffracting optical element, and a reflecting mirror. By forming a reflecting surface in free-formed surfaces which are different between Y-Z plane and X-Z plane and shifting a reflecting position on a reflecting surface per wavelengths, dispersion and dispersion slope are compensated by having an optical path length difference per wavelengths.

By doing this, it is possible to realize a dispersion compensator which can compensate dispersion and dispersion slope simultaneously with low loss.